SemaConnect

October 8, 2018

Texas Commission on Environmental Quality (TCEQ)
Air Quality Division
Implementation Grants Section, MD-204
P.O. Box 13087
Austin, TX 78711-3087

Via email: VWsettle@tceq.texas.gov

RE: SemaConnect recommendation and procurement guidance for Texas's Draft VW Beneficiary Mitigation Plan

Dear TCEQ:

SemaConnect, an American-owned manufacturer of smart, networked Level 2 EV charging solutions, respectfully submits the following recommendation and procurement guidance in response to TCEQ's invitation for public comment on its Draft Beneficiary Mitigation Plan (BMP) for the Volkswagen diesel settlement.

- **Recommendation: Utilize the maximum 15% allowable to fund light duty electric vehicle (EV) charging infrastructure**

National and State Context

VW Settlement

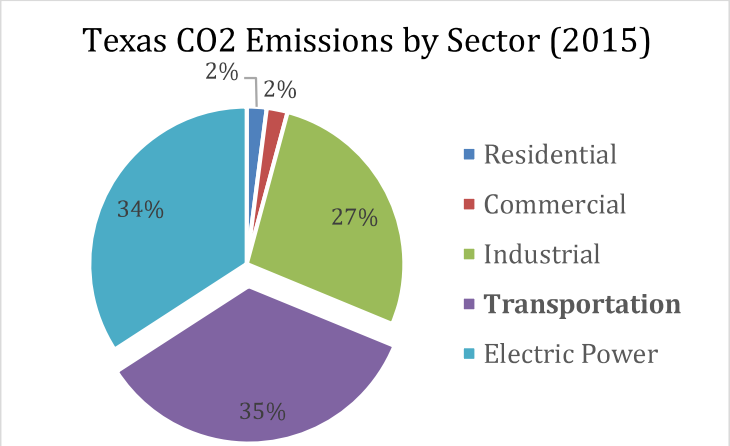
On October 26, 2016, a federal court in California approved what is commonly referred to as the Volkswagen diesel settlement. VW acknowledged it had intentionally and illegally tampered with its emissions control systems to falsify emissions tests. As a result, VW tailpipe emissions between 2009-2016 far exceeded federal limits for Nitrogen Oxides (NOx) which can cause asthma, emphysema, bronchitis and other respiratory illnesses.

The settlement amount includes $2.7 billion to be distributed to states and tribal nations in amounts proportional to the number of vehicles affected in each jurisdiction. States may allocate up to 15% of this funding towards "light duty zero emission vehicle supply equipment" which can include acquisition, installation, operation and maintenance of EV charging infrastructure.

This funding presents a unique opportunity for Texas to make significant headway in reducing emissions by advancing vehicle electrification, all without requiring taxpayers to foot the bill.

Emissions

In 2016, transportation dethroned electricity generation to claim the dubious distinction as the highest polluting sector in our nation's economy. In fact, transportation was the only consumption sector where carbon emissions increased. It now accounts for more than one-fourth of all U.S. greenhouse gas (GHG) emissions.



Source: EIA.gov/environment/emissions/state

In Texas, the situation is similar, but transportation accounts for an even larger share—over one-third—of carbon emissions statewide. It's not just CO2; transportation also accounts for three of the top four NOx-polluting sectors as well. In other words, cleaning up Texas's transportation emissions will significantly improve on the state's overall emissions and air quality.

The data is clear: to achieve cleaner and healthier air, we need to decarbonize our transportation sector. And to do that, we need to electrify transportation for the simple reason that EVs emit far less pollution than gas-powered vehicles. A recent Union of Concerned Scientists (UCS) report confirmed that even after taking into account EVs' more electricity-intensive manufacturing process, battery electric vehicles (BEVs) produce less than half the GHG emissions as comparable gas-fueled cars over their full life cycle.

What's more, EVs actually get cleaner over time: as a utility incorporates more wind, solar and other renewables into its generation mix, each EV it charges will become cleaner as well. This is especially true in a state like Texas which is blessed with bountiful wind and solar renewable resources.

Infrastructure

Charging infrastructure is the *sine qua non*—the essential ingredient—necessary to move EV adoption beyond the early adopters and into the mainstream. Drivers of gas vehicles take for granted their ability to fill up with fuel wherever they go,

because gas stations have spread like wildfire since the first "filling station" opened in Pittsburgh in 1905. On the other hand, EV charging stations are sparsely distributed and often inaccessible to the public. This "relative lack of charging infrastructure" holds back widespread adoption of EVs, according to the Financial Times. Indeed, the International Energy Administration (IEA) reports:

> "Charging infrastructure, whether at home, at work or at public locations, is indispensable for operating EVs… *the availability of chargers [is] one of the key factors for contributing to the market penetration of EVs*." (emphasis added)

The International Council on Clean Transportation (ICCT) conducts extensive technical and scientific analysis of the often-inter-related factors impacting electric transportation. In a white paper released last year, ICCT examined 350 metropolitan areas globally and found—not surprisingly—that "*public charging infrastructure is a key* to growing the [global] electric vehicle market" (emphasis added). ICCT followed up that research by focusing on the U.S.—specifically the 50 most populous U.S. metropolitan areas—and released those results this past summer:

> "Electric vehicle adoption and various types of charging infrastructure grow in unison. Public regular, public fast, and workplace charging are each linked with electric vehicle market uptake. These relationships remain complex and multidirectional: Infrastructure increases electric vehicle awareness and driver confidence, and more electric vehicle users increase demand for infrastructure."

State context

In Texas, the need for more public charging stations is clear. According to the U.S. Department of Energy's Alternative Fuels Data Center, Texas currently has 986 publicly accessible Level 2 charging locations totaling 2,292 Level 2 charging ports statewide. This equates to one public L2 charging port for every 4,053 households.

This relative lack of publicly-available charging infrastructure is symptomatic of a broader market failure: private investment alone has been inadequate to meet the need for publicly-available charging, and this in turn has hindered EV adoption. Public sector leadership and action is required. SemaConnect supports the Draft Plan's inclusion of a "statewide allocation of up to 15% of the funds for light-duty zero emission vehicle (ZEV) supply equipment... to prepare for increased and sustained use of zero emission vehicles" (page vii).

For these reasons, SemaConnect concurs with the Draft Plan's allocation of the maximum allowable 15% of Volkswagen settlement funding for light-duty EV charging infrastructure.

Procurement Guidance

- **Recommendation: Adopt industry-leading best practices of open standards and interoperability**

Our country is still in the very early stages of transportation electrification: battery and plug-in EVs comprise just 1 percent of U.S. car sales; EV charging companies are taking different approaches with their business models; and prospective buyers often have little to no awareness about how and where to charge. In this evolving context, *how* Texas decides to procure its EV charging infrastructure is arguably as important as *how much* it invests. The right approach can not only future-proof Texas's investments, it can accelerate greater EV adoption by providing drivers with a more customer-friendly charging experience.

To help guide EV charging policy and investment decisions, a broad coalition of industry stakeholders has established a set of guiding principles called the Transportation Electrification Accord. SemaConnect is a signatory to the Accord and recommends it for TCEQ's consideration. Its principles include the following:

- Open standards: "it is vital that open charging standards or protocols are adopted for both front-end and back-end interoperability. An open system also promotes greater transparency of vital data and information, which can be shared with a variety of innovative companies. The guidelines developed by the Open Charge Alliance (OCA) should be used as the baseline."

  Moreover, open standards safeguard against vendor lock-in by giving the owner the flexibility to change network providers. Open standards also future-proof the investment by enabling system upgrades to include the latest network communication protocols.

- Interoperability: "Consumers and EV owners will benefit greatly from a smart, efficient, and open architecture throughout the EV infrastructure. Ensuring interoperability throughout the EV architecture means that consumers should be able to roam easily among the different networks, with a common identification and authentication process, with as little hassle as possible. In addition, key consumer protection principles should be adhered to for all deployed EVSE (electric vehicle supply equipment) regardless of the EVSE owner, including transparent pricing and open access policies."

For these reasons, SemaConnect respectfully recommends that Texas incorporate open standards and interoperability requirements into its EV charging station procurements.

About SemaConnect

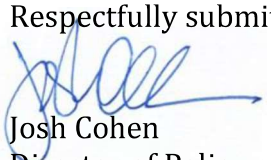
SemaConnect is the leading provider of electric vehicle amenities to the North American commercial and residential property market. Our gorgeously-designed stations are engineered to maximize uptime, and our truly open user network offers robust tools for measuring performance and managing use.

We are a proven partner to premier properties across the nation and have built trusted relationships with some of the most well-known commercial brands in the building space such as CBRE, JLL, Hines, Greystar, Cisco Systems, Avalon Bay and Standard Parking. Electrify America, the subsidiary Volkswagen was required to establish as part of the terms of the diesel settlement, awarded SemaConnect the largest share of its Cycle 1 investment contract to deploy Level 2 charging stations across the country.

SemaConnect is American-owned and we design, assemble and distribute all of our products at our headquarters in Maryland.

Thank you for your consideration of these comments which I hope are useful. If I can provide additional information or otherwise be helpful, please do not hesitate to contact me directly at

Respectfully submitted,



Josh Cohen
Director of Policy and Utility Programs

cc: Scott Kilgore, Regional Sales Manager